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EXAMINER

LEY, FRANCISCO M

ART UNIT	PAPER NUMBER
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3746

MAIL DATE	DELIVERY MODE
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11/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

10/539,657

Applicant(s)

LUEDTKE ET AL.

Examiner

Francisco M. Ley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/14/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is non-final and is subsequent to the action mailed on October 1st 2007. The October 1st office action objected to claims 5-7 and 11-19 as being improper multiple dependent claims, and as such did not treat these claims on the merits. The examiner has since been made aware of a preliminary amendment filed on 6/14/2005 which placed claims 5-7 and 11-19 in the proper format for examination. Hence, the October 1st office action improperly objected to these claims and they will be treated on the merits in the present action.

Specification

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

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3. The abstract of the disclosure is objected to because it exceeds 150 words in length and goes into detailed description of the invention instead of merely providing a general and concise statement of the disclosure. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities:

Page 2, paragraph 5, line 3, "electric motor in arranged" should recite, "electric motor **is** arranged".

Page 2, paragraph 7, line 3, "electrical driven air pump" should recite, "electrically driven air pump".

Page 3, paragraph 11, line 1, "the electrically driven **the** air pump" should recite, "the electrically driven air pump".

Page 5, paragraph 18, line 3, "an electrical driven air pump" should recite, "an electrically driven air pump".

Pages 8-9, paragraph 33, line 4, "drive air pump" should recite, "driven air pump".

Appropriate correction is required. Also, this list is exemplary and is not meant to be exhaustive. The entire disclosure should be reviewed and corrections made to any remaining informalities.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 6, 12, 14, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 6 recites the limitation "isolation means" in reference to claim 5. There is insufficient antecedent basis for this limitation in the claim, because claim 5 merely states, "the electric motor is isolated from the pump housing via elastic means", but does not specifically recite an "isolation means". Likewise, an "isolation means" is not recited in claim 1, from which claim 5 is dependent.

8. Claim 12 recites the limitation "the motor part" in reference to claim 8. There is insufficient antecedent basis for this limitation in the claim, because claim 8 recites an "electric motor (16)" but does not recite a "motor part (15)".

9. Claim 14 recites the limitation "pole housing" in reference to claim 13. There is insufficient antecedent basis for this limitation in the claim because claim 13 does not recite a "pole housing". Likewise, a "pole housing" is not recited in claim 8, from which claim 13 is dependent.

10. Claim 15 depends from claim 14 and is rejected for at least the same reasons.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt-Marloh et al. (U.S. Patent 5,738,503; Hereinafter referred to as Marloh).

Regarding Claim 1, Marloh discloses a method to manufacture an electrically driven air pump 1, in particular a method to manufacture a secondary air pump 1 for a motor vehicle with an internal combustion engine (Column 4, Lines 1-7), wherein the air pump 1 includes a housing 100, in which a pump mechanism with at least one fan wheel 32 as well as an electric motor 36 driving the at least one fan wheel 32 are arranged, and characterized in that the air pump 1 is counter balanced with the electric motor 36 built into the housing 100 via balancing in at least two planes 21 and 22 that are spaced apart axially.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marloh (U.S. Patent 5,738,503) as applied to claim 1 above, and further in view of Van De Venne et al. (U.S. Patent 5,711,652; Hereinafter, Van De Venne).

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15. Marloh as applied to claim 1 above discloses substantially all the limitations as claimed except a cover for the fan wheel side and a cover for the motor side. However, Van De Venne discloses an electrically driven air pump 1 having a cover 7 on a fan wheel side and a cover 2 on the motor side.

It would have been obvious at the time the invention was made to modify the electrically driven air pump disclosed by Marloh to include a cover on the fan wheel side and a cover on the motor side as disclosed by Van De Venne. The press fitting covers disclosed by Van De Venne provide "a substantial improvement over the construction heretofore known in the art which required a number of structural parts, gaskets and fasteners, all of which are eliminated." Therefore, it would be obvious to use the covers disclosed by Van De Venne, as this would provide easy installation after the balancing of the electrically driven air pump.

16. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marloh (U.S. Patent 5,738,503) as applied to claim 1 above, and further in view of Nakanura et al. (U.S. Patent 5,235,228; Hereinafter, Nakamura).

Marloh discloses substantially all of the claimed invention as applied to claim 1 and also discloses the use of balancing on a fan wheel 32 by material removal (Column 5, Lines 52-56). However, Marloh does not disclose the use of a balancing plate, which is taught by Nakanura. Nakanura discloses the use of two balancing plates 22F and 22R for balancing an electric motor by material removal which may be achieved either by removing screws from the balancing plates 22F and 22R or by drilling the plates to desired depths (Column 3, Lines 47-50). As Nakanura shows in Figures 1, 3, and 5, the

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balancing plates are arranged on the shaft 14 of a driving motor (10, 12) and are placed on both sides of the motor, which corresponds to an opposing side of a fan wheel.

It would have been obvious at the time the invention was made to modify the air pump disclosed by Marloh to use a balancing plate as taught by Nakanura. Marloh discloses that balancing is achieved in two compensation planes, which are spaced axially from one another where the first plane includes the radial blower, and the second plane is on the opposite side of the external rotor with possible attachment of material (Marloh Column 3, Lines 17-24). Therefore, the "attachment of material" could obviously be a balancing plate as taught by Nakanura as this would allow the motor to be accurately balanced at both the front and rear ends to obtain a two-point balance (This is taught by Nakanura in Column 2, Lines 31-34).

17. Claims 5, 6, and 8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marloh (U.S. Patent 5,738,503) in view of Nakanura (U.S. Patent 5,235,228), and further in view of Van De Venne (U.S. Patent 5,711,652).

The discussion of Marloh in view of Nakanura as applied to claim 2 is incorporated herein.

Marloh in view of Nakanura discloses all of the limitations as claimed, except for an elastic support means, a cover for the fan wheel side, and a cover for the motor side. However, these features are taught by Van De Venne, who discloses an electrically driven air pump 1 having an elastic means 18 and 21 in the form of axially spaced elastomer rings (Column 2, Lines 45-46) that isolate the motor 4 from the pump housing 2. Although Van De Venne does not specify it, the air pump 1 inherently may be

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balanced in coordination with the natural frequency of the isolation means 18 and 21 in order to avoid harmful resonance vibrations.

Figure 1 shows that the elastomer rings 18 and 21 are embodied as axial-radial supporting rings and are positioned on the front sides of the pole housing that surrounds the driving motor 4. A sealing lip is embodied on the elastomer ring on the fan wheel side at the position marked 19 in Figure 1. The elastomer ring 21 has means 28 to support the torque of the driving motor 4 (Column 3, Lines 29-30).

It would have been obvious at the time the invention was made to modify the combination of Marloh and Nakanura to use elastomer rings for an elastic support means as disclosed by Van De Venne. This would provide a buffer for the vibrations transmitted from the motor 4 to the housing 2 thereby reducing noise (Van De Venne Column 3, Lines 35-38).

Van De Venne further discloses that the air pump 1 has a cover 7 on a fan wheel side and a cover 2 on the motor side. The motivation to combine the cover disclosed by Van De Venne with the combination of Marloh and Nakanura is the same as that applied to claim 7 above.

Regarding claim 9, although Nakanura does not disclose it, the balancing plates 22F and 22R could obviously be composed at least partially of a metal for added strength and reliability as well as for additional weight which provides for a more effective balancing medium. Regarding claim 11, it can be seen from the figures in Nakanura that the diameter of the balancing plates 22F and 22R are smaller than the diameter of the rotor 12 of the electric motor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francisco M. Ley whose telephone number is (571) 270-1299. The examiner can normally be reached on Monday-Friday, 8:30am-6:00pm, Alt Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached at (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call (800) 786-9199 (IN USA OR CANADA) or (571) 272-1000.

/FML/
November 6th, 2007

DEVON C. KRAMER
PATENT EXAMINER
[Signature]
11/7/07